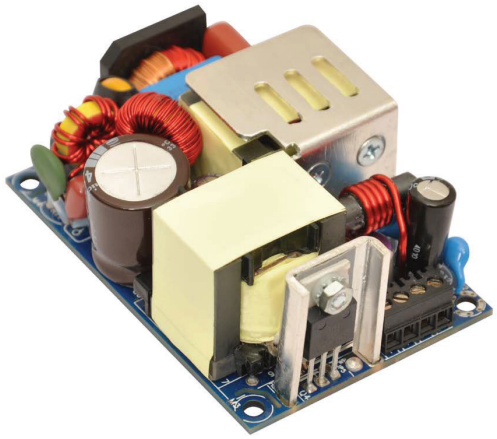
EOS

LFMWLP120 SERIES

120 Watt Open Frame Power Supply

Measures: 3.00 x 2.00 x 1.18”



Features

- 3” x 2” foot print
- Height 1” above PCB
- 120 Watts with Forced Air Cooling
- Approval to EN60601 3rd Edition, Dual fusing
- Efficiencies upto 93%
- -40 to 70°C operating temperature, Thermal Shut-Down
- Suitable for BF applications
- Means of Protection : 2xMOPP
- >3.00m Hours, Telcordia -SR332-issue 3
- Standby Power < 0.3W
- Class II option available

Electrical Specifications

Input Voltage	85-264 VAC/390 VDC[5], Universal (see derating under output power)
Input Frequency	47–63 Hz
Input Current	115 VAC: 1.2 A max. 230 VAC: 0.65 A max.
No Load Power	less than 0.3W typical
Inrush Current	115 VAC – 25 A, 230 VAC – 45 A, 264 VAC – 75 A
Leakage Current	300 uA Typical, (N.A. For Class II Option) Touch current <100uA
Efficiency	93%(48V,58V), 91%(24V,30V), 90%(12V,15V)
Hold-up Time	>10 ms typical
Power Factor	exceeds 0.95 with Full Load, Active PFC
Output Power	Forced cooling : 120W with 300LFM (refer mechnical drawing) Convection cooling : 100W (for input 100-264 VAC) (de-rate linearly to 80W @ 85VAC)
Output Voltage Adjustability	+/-3%
Line Regulation	+/-0.5%
Load Regulation	+/-1%
Transient Response	25% step load change, at 0.1A/uS slew rate, 50% duty cycle, 50Hz=4% , recovery time < 5 ms
Rise Time	55ms typical
Set Point Tolerance	+/–1%
Over Current Protection	>110%
Over Voltage Protection	110 to 140%, Latch type (AC recycling required)
Short Circuit Protection	Hiccup mode
Switching Frequency	60 KHz typical
Operating Temperature*	–40 to +70°C
Storage Temperature	–40 to +85°C
Relative Humidity	5% to 95%, noncondensing
Altitude	Operating: 16,000 ft.; Nonoperating: 40,000 ft.
MTBF	>3.00m Hours, Telcordia -SR332-issue 3
Isolation Voltage	Input to Output – 4000 VAC medical applications. Input to GND - 1500 VAC (Not Applicable For Class II Option) Output to GND- 1500VAC for type BF , 500 VAC for type B (Not Applicable For Class II Option)
Protection Level	Primary to Secondary: 2 MOPP, Primary to Earth: 1 MOPP, Secondary to Earth: 1 MOPP

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Model Number	Description	Voltage	Max. Load (Convection)	Max. Load (300 LFM)	Min. Load	Ripple[1]
LFMWLP120-1001	with Screw Terminal	12 V	8.33A	10.0A	0.0 A	1%
LFMWLP120-1001-II	with Screw Terminal	12 V	8.33A	10.0A	0.0 A	1%
LFMWLP120-1301	with Molex Header	12 V	8.33A	10.0A	0.0 A	1%
LFMWLP120-1301-II	with Molex Header	12 V	8.33A	10.0A	0.0 A	1%
LFMWLP120-1002	with Screw Terminal	15 V	6.66A	8.0A	0.0 A	1%
LFMWLP120-1002-II	with Screw Terminal	15 V	6.66A	8.0A	0.0 A	1%
LFMWLP120-1302	with Molex Header	15 V	6.66A	8.0A	0.0 A	1%
LFMWLP120-1302-II	with Molex Header	15 V	6.66A	8.0A	0.0 A	1%
LFMWLP120-1003	with Screw Terminal	24 V	4.16A	5.0A	0.0 A	1%
LFMWLP120-1003-II	with Screw Terminal	24 V	4.16A	5.0A	0.0 A	1%
LFMWLP120-1303	with Molex Header	24 V	4.16A	5.0A	0.0 A	1%
LFMWLP120-1303-II	with Molex Header	24 V	4.16A	5.0A	0.0 A	1%
LFMWLP120-1004	with Screw Terminal	48 V	2.08A	2.5A	0.0 A	1%
LFMWLP120-1004-II	with Screw Terminal	48 V	2.08A	2.5A	0.0 A	1%
LFMWLP120-1304	with Molex Header	48 V	2.08A	2.5A	0.0 A	1%
LFMWLP120-1304-II	with Molex Header	48 V	2.08A	2.5A	0.0 A	1%
LFMWLP120-1005	with Screw Terminal	30 V	3.33A	4.0A	0.0 A	1%
LFMWLP120-1005-II	with Screw Terminal	30 V	3.33A	4.0A	0.0 A	1%
LFMWLP120-1305	with Molex Header	30 V	3.33A	4.0A	0.0 A	1%
LFMWLP120-1305-II	with Molex Header	30 V	3.33A	4.0A	0.0 A	1%
LFMWLP120-1006	with Screw Terminal	58 V	1.72A	2.07A	0.0 A	1%
LFMWLP120-1006-II	with Screw Terminal	58 V	1.72A	2.07A	0.0 A	1%
LFMWLP120-1306	with Molex Header	58 V	1.72A	2.07A	0.0 A	1%
LFMWLP120-1306-II	with Molex Header	58 V	1.72A	2.07A	0.0 A	1%
LFWLP120-CK metal cover kit accessory						

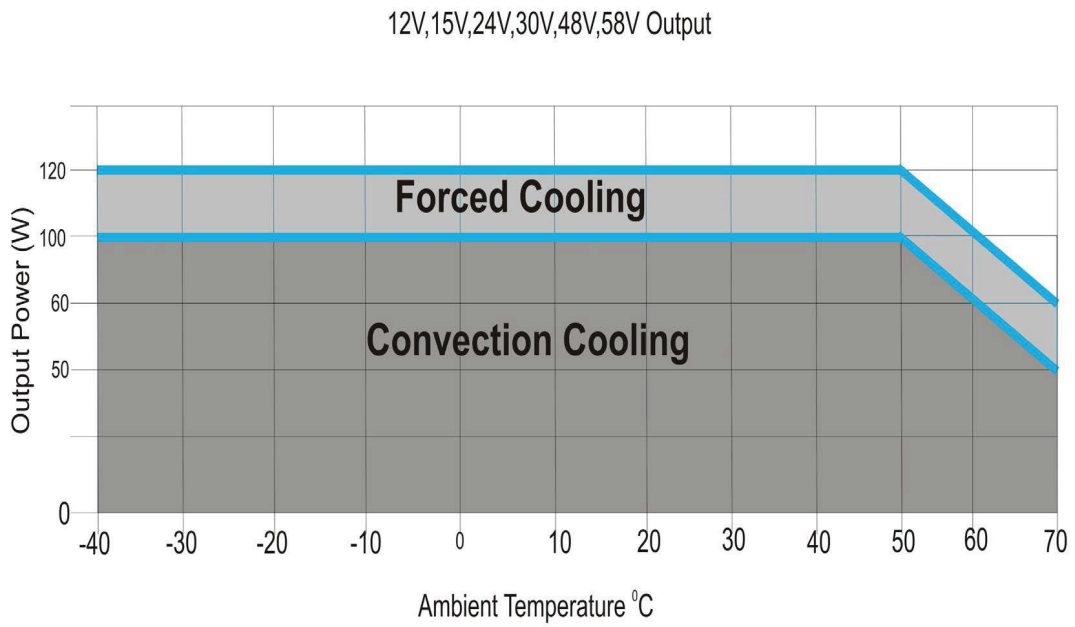
Connectors		
J1	Pin 1	AC LINE
	Pin 2	NOT FITTED
	Pin 3	AC NEUTRAL
J2	Pin 1,2	-VE
	Pin 3,4	+VE

Notes

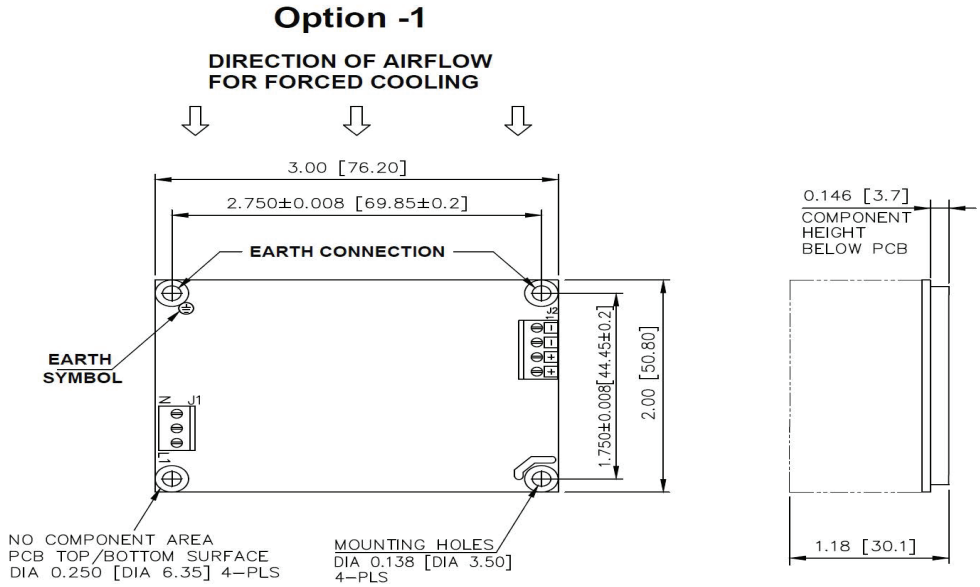
1. Ripple is peak to peak with 20 MHz bandwidth and 10 μF (Tantalum capacitor) in parallel with a 0.1 μF capacitor at rated line voltage and load ranges.
2. Class II means without input Earth connection.
3. Specifications are for nominal input voltage, 25°C unless otherwise stated.
4. -40 to 0°C startup is guaranteed with spec deviation in output ripple and voltage regulation.
5. Functional, not approved.

Mechanical Specifications			
AC Input Connector (J1) Option 1	Molex: 39357-0003 Tyco-2-1776112-3	Option 2	Molex: 1722861103 (Mating conn: Molex 1722561003)
DC Output Connector (J2) Option 1	Molex: 39357-0004 Tyco-2-1776112-4	Option 2	Molex: 1722861104 (Mating conn: Molex 1722561004)
Dimensions	3 x 2 x 1.18 inches (76.2 x 50.8 x 30.1mm)		
Weight	150gm approx		
EMC			
CE Mark	Complies with LVD Directive		
Conducted Emissions	EN55022–B, CISPR22–B, FCC PART15–B		
Static Discharge	EN61000–4–2, Level–3		
RF Field Susceptibility	EN61000–4–3, Level–3		
Fast Transients/Bursts	EN61000–4–4, Level–3		
Radiated Emissions	Level A radiated, Level B radiated with external core (King core K5B RC 25x12x15-M in input cable with 5 Turns)		
Surge Susceptibility	EN61000–4–5, Level–3		
Harmonic Current	EN61000–3–2, Class D		
Safety			
Safety Standard(s)	IEC/EN 60601-1 Edition 3.0 + AM1, ANSI/AAMI ES60601-1 and CAN/CSA -C22.2 No. 60601-1		
Approval Agency	Nemko, UL, C-UL		
Safety File Number(s)	Class-I : UL: Certificate No. 20151106-E173812, CB: Certificate No. NO89047, , NEMKO: Certificate No. P15220391 Class-II : UL: Certificate No. 20151106-E173812, CB: Certificate No. NO89061, NEMKO: Certificate No. P15220387		
Environmental			
RoHS Version	LFMWLP120 series meet RoHS compliance as per european RoHS directive (Directive 2011 / 65 / EU)		

Derating Curve



Mechanical Drawing



Mechanical Drawing